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EXAMINER
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PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/737,368

Applicant(s)

ULLMANN ET AL.

Examiner

Haresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 9,10,23,24 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8,11-22,25-28 and 30 is/are rejected.
- 7) ☒ Claim(s) 1,15,17 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-30 are presented for examination. Claims 9, 10, 23, 24, 29 are withdrawn.

Claims 1-8, 11-22, 25-28 and 30 are examined.

### *Response to Arguments*

2. Applicant's arguments with respect to claims 1-8, 11-22, 25-28 and 30 have been considered but are moot in view of the new ground(s) of rejection.

Applicant states (1), "With regard to the withdrawn claims, applicants herein cancel those claims without prejudice to future prosecution of the claims". For clarification; the claims, i.e., 9, 10, 23, 24 and 29, dated 9/6/2005, contain "withdrawn" identifier along with claimed limitations, which should just contain "cancelled" identifier. Hence, the applicant is requested to properly update the status of the claims.

Applicant argues (2), cited references do not encompass all possible values assigned to a network".

The examiner respectfully disagrees in response to applicant's arguments. For clarification, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, "encompass all possible values assigned to a network", are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The

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First inquiry must be into exactly what the claims define. See *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970).

Applicant argues (3), cited reference does not measure capacity during runtime, dynamically determining if a link is weak, calculating based on runtime measurements, use measurements to dynamically assess runtime link speed”.

The examiner respectfully disagrees in response to applicant's arguments. For clarification, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, “measure capacity during runtime”, “dynamically determining if a link is weak, calculating based on runtime measurements, use measurements to dynamically assess runtime link speed”, are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The First inquiry must be into exactly what the claims define. See *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970).

Applicant argues (4), the cited references does not adjusting application usage either by a system administrator in response to dynamic detection of slow links”.

The examiner respectfully disagrees in response to applicant's arguments. For clarification, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, “adjusting application usage either by a system administrator in response to dynamic detection of slow

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links”, are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The First inquiry must be into exactly what the claims define. See *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970).

Applicant argues (5), “Ganz et. al, 6,049,549 (Hereinafter Ganz) does not disclose or suggest a system administrator alter application usage of slow links based on dynamic detection of slow links based on link speed measurements”.

The examiner respectfully disagrees in response to applicant's arguments. For clarification, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies, “a system administrator alter application usage of slow links based on dynamic detection of slow links based on link speed measurements”, are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The First inquiry must be into exactly what the claims define. See *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970).

Applicant argues (6), “Chirashnya et al. 6,601,195 (Hereinafter Chirashnya) does disclose or suggest application-based response to faulty switch adapters”

The examiner respectfully disagrees in response to applicant's arguments. For clarification, in response to applicant's argument that the references fail to show certain features

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of applicant's invention, it is noted that the features upon which applicant relies, "application-based response to faulty switch adapters (network components)", are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The First inquiry must be into exactly what the claims define. See *In re Wilder*, 166 USPQ 545, 548 (CCPA 1970).

### ***Drawings***

3. New corrected drawings are required in this application because Figures 1-4 do not show the applicant's claimed invention, please see claims, i.e., "computers having a plurality of endpoints", "endpoints connected by a plurality of links", "detecting slow link", "determining what specific applications require access", "adjusting application usage", "invoking preprogrammed application responses". Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled --Replacement Sheet-- in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Information Disclosure Statement***

4. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application. Applicant's admission that, "solutions are realistic for small scale point-to-point system", using, "stale information", "local server", "system administrators", "creating slow or time sensitive links " "automatically by automatic programming interfaces (API)s", etc., are well-known in the art, background of the invention (page 1, line 14 through page 4, line 2); the examiner requests the applicant to provide the prior art teachings for this, as at least "defining an original link speed factor", etc of the claimed invention are needed for the solutions that are realistic for the small point-to-point system. Also, unless the invention is created from scratch, applicant needs to provide the prior arts that have led to the invention.

In response to this requirement, please provide the title, citation and copy of each publication that is a source used for the description of the prior art in the disclosure. For each publication, please provide a concise explanation of that publication's contribution to the description of the prior art.

This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

***Claim Objections***

5. Claims 1, 15, 17, 28 are objected to because of the following informalities:

Claims 1, 15, 17, 28, mention, "comparing the original link speed factor to the runtime link speed factor", which should be --comparing the original link speed factor with the runtime link speed factor--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-8, 28 implement steps of a method that contain comparing that do not produce a tangible result. Comparing alone is not producing a tangible result. It's not until the result of the comparison is used in a disclosed practical application or at least made available for use in a disclosed practical application that it becomes a tangible result, which enables any usefulness of having done the comparison to be realized (please see the claimed subject matter of claims 1-8, 28). Also, the steps of the claims (body of the claims) need hardware to perform the steps.

7. Claims 11-12, 14-16, 30 implement steps of a method that contain adjusting that do not produce a tangible result. Adjusting alone is not producing a tangible result. It's not until the



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result of the adjusting is used in a disclosed practical application or at least made available for use in a disclosed practical application that it becomes a tangible result, which enables any usefulness of having done the comparison to be realized (please see the claimed subject matter of claims 11-12, 14-16, 30). Also, the steps of the claims (body of the claims) need hardware to perform the steps.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 11, 15, 17, 25, 28, 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification of this application under examination in such a way as to reasonably convey to one skilled in the relevant art to use and/or make the invention.
9. The specification of this application under examination does not contain subject matter to implement the claimed invention with the limitations as claimed,

“endpoints being connected by a plurality of links ...for performing measurement at runtime of the plurality of links”, “without” the links connected between at least two entities; also, it is not apparent, to what the endpoints are being connected to;

“defining (a single) original link speed factor for multiple links”, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple original link speed factors for each respective link, block 401;

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“runtime measurement”, “without” measuring at runtime, as the specification does not define what “runtime measurement” is; also, it is not apparent how “without” measuring at runtime this can be achieved;

“runtime link speed indicator”, and, the specification does not define what “runtime link speed indicator” is; also, it is not apparent how a display item (indicator) can be measured;

“runtime link speed factor”, as the specification does not define what “runtime link speed factor” is and what “calculating” contains, i.e., what calculating includes, what operations are done on the measured item; also, it is not apparent how “without” measuring at runtime this factor can be achieved; “calculating (a single) speed factor for each of the multiple links”, which is contrary to the specification, i.e., for example, see block 404, figure 4 containing multiple speed factors are calculated for each respective link, block 401”.

“comparing (single) original speed factor to (single) the runtime speed factor for each of the links, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple speed factors are compared for each respective link” block 401; as cited in claim 1.

“endpoints being connected by a plurality of links”, “without” the links connected between at least two entities; also, it is not apparent, to what the endpoints are being connected to; as cited in claim 11.

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“defining (a single) original link speed factor for multiple links”, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple original link speed factors for each respective link, block 401;

“runtime measurement”, “without” measuring at runtime, as the specification does not define what “runtime measurement” is; also, it is not apparent how “without” measuring at runtime this can be achieved;

“runtime link speed indicator”, and, the specification does not define what “runtime link speed indicator” is; also, it is not apparent how a display item (indicator) can be measured;

“runtime link speed factor”, as the specification does not define what “runtime link speed factor” is and what “calculating” contains, i.e., what calculating includes, what operations are done on the measured item; also, it is not apparent how “without” measuring at runtime this factor can be achieved; “calculating (a single) speed factor for each of the multiple links”, which is contrary to the specification, i.e., for example, see block 404, figure 4 containing multiple speed factors are calculated for each respective link, block 401”.

“comparing (single) original speed factor to (single) the runtime speed factor for each of the links, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple speed factors are compared for each respective link” block 401; as cited in claim 15.

“endpoints being connected by a plurality of links ...”, “without” the links connected between at least two entities; also, it is not apparent, to what the endpoints are being connected to;

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“(a single) original link speed factor for multiple links”, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple original link speed factors for each respective link, block 401;

“runtime measurement”, “without” measuring at runtime, as the specification does not define what “runtime measurement” is; also, it is not apparent how “without” measuring at runtime this can be achieved;

“runtime link speed indicator”, and, the specification does not define what “runtime link speed indicator” is; also, it is not apparent how a display item (indicator) can be measured;

“runtime link speed factor”, as the specification does not define what “runtime link speed factor” is and what “calculating” contains, i.e., what calculating includes, what operations are done on the measured item; also, it is not apparent how “without” measuring at runtime this factor can be achieved; “calculating (a single) speed factor for each of the multiple links”, which is contrary to the specification, i.e., for example, see block 404, figure 4 containing multiple speed factors are calculated for each respective link, block 401”.

“comparing (single) original speed factor to (single) the runtime speed factor for each of the links, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple speed factors are compared for each respective link” block 401; as cited in claim 17.

“endpoints being connected by a plurality of links”, “without” the links connected between at least two entities; also, it is not apparent, to what the endpoints are being connected to; as cited in claim 25.

“endpoints being connected by a plurality of links ...for performing measurement at runtime of the plurality of links”, “without” the links connected between at least two entities; also, it is not apparent, to what the endpoints are being connected to;

“defining (a single) original link speed factor for multiple links”, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple original link speed factors for each respective link, block 401;

“runtime measurement”, “without” measuring at runtime, as the specification does not define what “runtime measurement” is; also, it is not apparent how “without” measuring at runtime this can be achieved;

“runtime link speed indicator”, and, the specification does not define what “runtime link speed indicator” is; also, it is not apparent how a display item (indicator) can be measured;

“runtime link speed factor”, as the specification does not define what “runtime link speed factor” is and what “calculating” contains, i.e., what calculating includes, what operations are done on the measured item; also, it is not apparent how “without” measuring at runtime this factor can be achieved; “calculating (a single) speed factor for each of the multiple links”, which is contrary to the specification, i.e., for example, see block 404, figure 4 containing multiple speed factors are calculated for each respective link, block 401”.

“comparing (single) original speed factor to (single) the runtime speed factor for each of the links, which is contrary to the specification, i.e., for example, see block 405, figure 4 containing multiple speed factors are compared for each respective link” block 401; as cited in claim 28.

“endpoints being connected by a plurality of links”, “without” the links connected between at least two entities; also, it is not apparent, to what the endpoints are being connected to; as cited in claim 30.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

10. Claims 2, 3-8, 11, 14, 16, 18-22, 25, 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “desired relationship” in claims 2 and 18 is a relative term, which renders the claim indefinite.

Claims 3-8, 16, 19-22, 25 recites the limitations, “the designated slow links”. There is insufficient antecedent basis for this limitation in the claim (Please see MPEP 706.03(d).

Claim 8 also recites the limitations, “said system administrator”. There is insufficient antecedent basis for this limitation in the claim (Please see MPEP 706.03(d).

The term “slow link” in claims 11, 25 and 30 is a relative term, which renders the claim indefinite (please note that the claims contain multiple links in a distributed network, however, the claimed invention of the claims do contain that either all the links of the network are considered as “slow links” or none of the links of the network are considered as “slow links”).

Claim 14 recites the limitations, “the detection of slow links”. There is insufficient antecedent basis for this limitation in the claim (Please see MPEP 706.03(d).

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Claim 25 recites the limitations, “said detected slow links”. There is insufficient antecedent basis for this limitation in the claim (Please see MPEP 706.03(d)).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-6, 11, 12, 15-20, 25, 26, 28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. 6,738,819 (Hereinafter Li) in view of “Official Notice”.

13. As per claims 1, 11, 15, 17, 25, 28, and 30, Li teaches an apparatus, computer readable medium, a method for identifying slow links (e.g., weakest link, col., 5, line 11, QoS manager identifying links based on bandwidth, col., 7, lines 37 – 40, col., 8, lines 15, 27, figure 8) and dynamically adjusting application usage of links (e.g., dynamic bandwidth adjustment, abstract) in a distributed network comprising a plurality of computers (e.g., figure 1) having a plurality of endpoints (e.g., block 18 and 19, customers, figure 1), said endpoints being connected by a plurality of links (e.g., col., 4, lines 8 – 24) comprising the steps of:

using a link factor for each of said plurality of links (e.g., Quality of service needed bandwidth parameters requirement, col., 7, lines, 29 – 49),

performing at least one runtime measurement of at least one runtime link indicator for each of said plurality of links (e.g., col., 6, lines 58 – 67);

calculating a runtime link factor based on said runtime measurement of at least one runtime link indicator for each of said plurality of links (e.g., col., 7, lines 1 – 19) and

comparing the link factor to the runtime link factor for each of said plurality of links (e.g., col., 7, lines 1 – 19),

detecting at least one slow link in said distributed network (e.g., col., 6, lines 39 – 54);

for each detected slow link, determining what specific applications requires access to said detected slow link (e.g., QoS applications needed bandwidth of the links, col., 5, lines 13 – 33);  
and

adjusting application usage of said detected slow link by said each of said specific applications (e.g., col., 5, lines 52 – col., 6, line 9).

Note: “defining” is not limited to “predefining by an administrator using GUI”; in fact the specification defines, the link speed factors may be simply endpoint data such as speed, link data such as link speed, route data for a plurality of links, some factor which is calculated from the foregoing and other network performance indicators.

However, Li does not specifically mention about **defining** the factor and the factor being **original** for speed.

“Official Notice” is taken that both the concept and advantages of defining the factor and the factor being original for speed is well known and expected in the art. For example, Knauerhase et al., 6,215, 774, Intel Corporation, discloses usage of the limitations, col., 3, lines 40 – 65; Sterner, 6,728,216, Advanced Micro Devices Inc, also discloses usage of the limitations,



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abstract; Ishida et al., 6,975,604, Hitachi Ltd, also discloses usage of the limitations, col., 6, lines 34 – 54, col., 7, line 62 – 67, col., 8, lines 46 - 54; Joergensen, 6,529,957, Intel Corporation, also discloses the limitations, col., 3, lines 43 – 63; Fan, 2002/0054567 also discloses the limitations, figure 3; “Traffic Engineering Management”, Cisco, 9/19/2000, pages 1-29, also discloses usage of the limitations, at pages 5, 28 and 29, Almulhem et al., 6,587,431, also discloses usage of the limitations, col., 10, lines 6 – 62; Miller et al., 6,51,696, StarBurst Communications Corporation, also discloses the limitations, figure 6, col., 11, lines 25 –52; Rakishitz et al., 6,578,077, Novell Inc., discloses the limitations, col., 6, line 50 – col., 7, line 50, Bertin et al., IBM, 5606669, also discloses the limitations, col., 10, line 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include defining the factor and the factor being original for speed with the teachings of Li in order to facilitate usage of defining the original factor for speed because defining would identify the value of the factor that would be considered as an original for a link. The original value would be used to specify what the link supports for. The factor that utilizes a speed would support considering speed of the link as an issue in order to determine whether the link is faster than other links of a network.

14. As per claims 2, 18, Li teaches the following:

designating as a slow link any link for which the runtime link factor satisfies a desired relationship to the link speed factor (e.g., col., 2, lines 40 –54).

15. As per claims 3 and 19, Li teaches the following:

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notifying at least one of said computers about at least one of the designated slow links (e.g., col., 7, lines 29 – 40).

16. As per claim 4, Li teaches the following:

a plurality of applications are running in said network (e.g., Quality of service needed applications, col., 2, lines 26 – 54) and further comprising notifying at least one of said applications about at least one of the designated slow links (e.g., col., 7, lines 29 – 40).

17. As per claims 5, 16, Li teaches the following:

said at least one of said applications altering its usage of said at least one of the designated slow links (e.g., use of needed bandwidth by the application, use of QoS manager, col., 2, lines 40 – 54).

18. As per claims 6 and 20, Li teaches the following:

a plurality of applications are running in said network (e.g., QoS needed applications, col., 2, lines 26 – 54) and further comprising automatically altering application usage of the designated slow links (e.g., dynamic support of QoS manager, col., 2, lines 40 – 54).

19. As per claims 12 and 26, Li teaches the following:

said adjusting application usage comprises invoking preprogrammed application responses (e.g., col., 7, lines 20 – 40).

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20. Claims 7, 8, 13, 14, 21, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li and “Official Notice” in view of Ganz et. al, 6,049,549 (Hereinafter Ganz).

21. As per claims 7, 8, 13, 14, 21, 22 and 27, Li teaches the claimed limitations as rejected under claims 2, 11, 18, 25. However, Li does not specifically mention about an administrator identifying designated slow links and altering application usage of the designated slow links.

Ganz teaches an administrator identifying designated slow links and altering application usage of the designated slow links (e.g., col., 5, line 58 – col., 6, line 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Li with the teachings of Ganz in order to facilitate accessing, monitoring and modifying link related parameters by an administrator using a graphical user interface. The motivation would be obvious because it is well in the art to use a network administration station (NAS) to access, monitor and modify link related parameters. The links that are weak can be identified and monitored and when necessary an application that needs necessary bandwidth can be assigned to a larger bandwidth link, as suggested by Ganz.

22. Claims 1-8, 11-22, 25-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chirashnya et al. 6,601,195 (Hereinafter Chirashnya) in view of “Official Notice”.

23. As per claims 1, 11, 15, 17, 25, 28, and 30, Chirashnya teaches an apparatus, computer readable medium, a method for identifying slow links (e.g., low data rate link, col., 3, lines 5-21) and dynamically adjusting application usage of links (e.g., col., 19, lines 18 - 28) having a

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plurality of endpoints (e.g., figure 1), said endpoints being connected by a plurality of links (figure 1) comprising the steps of:

using a link factor for each of said plurality of links (e.g., administrator specified rate parameters, figure 9, col., 16, lines 32 - 58),

performing at least one runtime measurement of at least one runtime link indicator for each of said plurality of links (e.g., col., 3, lines 33 - 50);

calculating a runtime link factor based on said runtime measurement of at least one runtime link indicator for each of said plurality of links (e.g., col., 3, lines 33 - 50) and

comparing the link factor to the runtime link factor for each of said plurality of links (e.g., col., 3, lines 33 - 50),

detecting at least one slow link in said distributed network (e.g., col., 3, lines 5- 21);

for each detected slow link, determining what specific applications requires access to said detected slow link (e.g., col., 3, lines 5 - 32); and

adjusting application usage of said detected slow link by said each of said specific applications (e.g., col., 4, lines 12 – col., 6, line 24).

Note: “defining” is not limited to “predefining by an administrator using GUI”; in fact the specification defines, the link speed factors may be simply endpoint data such as speed, link data such as link speed, route data for a plurality of links, some factor which is calculated from the foregoing and other network performance indicators.

However, Chirashnya does not specifically mention about **defining** the factor and the factor being **original** for **speed**.

“Official Notice” is taken that both the concept and advantages of defining the factor and the factor being original for speed is well known and expected in the art. For example, Knauerhase et al., 6,215, 774, Intel Corporation, discloses usage of the limitations, col., 3, lines 40 – 65; Sterner, 6,728,216, Advanced Micro Devices Inc, also discloses usage of the limitations, abstract; Ishida et al., 6,975,604, Hitachi Ltd, also discloses usage of the limitations, col., 6, lines 34 – 54, col., 7, line 62 – 67, col., 8, lines 46 - 54; Joergensen, 6,529,957, Intel Corporation, also discloses the limitations, col., 3, lines 43 – 63; Fan, 2002/0054567 also discloses the limitations, figure 3; “Traffic Engineering Management”, Cisco, 9/19/2000, pages 1-29, also discloses usage of the limitations, at pages 5, 28 and 29, Almulhem et al., 6,587,431, also discloses usage of the limitations, col., 10, lines 6 – 62; Miller et al., 6,51,696, StarBurst Communications Corporation, also discloses the limitations, figure 6, col., 11, lines 25 –52; Rakishitz et al., 6,578,077, Novell Inc., discloses the limitations, col., 6, line 50 – col., 7, line 50, Bertin et al., IBM, 5606669, also discloses the limitations, col., 10, line 5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include defining the factor and the factor being original for speed with the teachings of Chirashnya in order to facilitate usage of defining the original factor for speed because defining would identify the value of the factor that would be considered as an original for a link. The original value would be used to specify what the link supports for. The factor that utilizes a speed would support considering speed of the link as an issue in order to determine whether the link is faster than other links of a network.

24. As per claims 2, 18, Chirashnya teaches the following:

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designating as a slow link any link for which the runtime link factor satisfies a desired relationship to the link factor (e.g., col., 3, lines 44 - 64).

25. As per claims 3 and 19, Chirashnya teaches the following:

notifying at least one of said computers about at least one of the designated slow links (e.g., col., 4, lines 23 - 35).

26. As per claim 4, Chirashnya teaches the following:

a plurality of applications are running in said network (e.g., col., 12, lines 42 - 49) and further comprising notifying at least one of said applications about at least one of the designated slow links (e.g., col., 16, line 54 - col., 17, line 9).

27. As per claims 5, 16, Chirashnya teaches the following:

said at least one of said applications altering its usage of said at least one of the designated slow links (e.g., col., 15, line 60 - col., 16, line 8).

28. As per claims 6 and 20, Chirashnya teaches the following:

a plurality of applications are running in said network (e.g., col., 12, lines 42 - 49) and further comprising automatically altering application usage of the designated slow links (e.g., col., 15, line 60 - col., 16, line 8).

29. As per claims 12 and 26, Chirashnya teaches the following:

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said adjusting application usage comprises invoking preprogrammed application responses (e.g., col., 15, line 60 – col., 16, line 8).

30. As per claims 7, 8, 13, 14, 21, 22 and 27, Chirashnya teaches the following an administrator identifying designated slow links and altering application usage of the designated slow links (e.g., col., 16, lines 31 – 64).

### *Conclusion*

Examiner has cited particular columns and line numbers and/or paragraphs and/or sections and/or page numbers in the reference(s) as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety, as potentially teaching, all or part of the claimed invention, as well as the context of the passage, as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Haresh Patel

Haresh Patel

September 10, 2006